

ABSTRACT OF THE DISCLOSURE

A perpendicular magnetic recording head includes: an auxiliary pole layer; a main pole layer; a coil layer for providing a recording magnetic field to the auxiliary pole layer and the main pole layer; a nonmagnetic layer; and a connection layer magnetically coupled to the main pole layer. The nonmagnetic layer is formed on the main pole layer to maintain the main pole layer at a predetermined height during manufacture, allowing independent control of the track width T_w and the height of the main pole layer. A method for manufacturing the perpendicular magnetic recording head is also provided.

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